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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,287	03/31/2006	Alain Bouvier	288319US2PCT	5514

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

DOUGHERTY, SEAN PATRICK

ART UNIT	PAPER NUMBER
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3736

NOTIFICATION DATE	DELIVERY MODE
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12/03/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/574,287	Applicant(s) BOUVIER ET AL.	
	Examiner SEAN P. DOUGHERTY	Art Unit 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the initial Office action based on the 10/574287 application filed 03/31/2006.

Priority

The filing date of the priority document (FRANCE 03 11883) has been perfected by the Applicant. The priority document has been certified and an English translation of the document has been provided. See 37 CFR 1.55(a)(3).

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Response to Amendment

The amendment(s) filed 07/31/2009 by Applicant have been considered by Examiner. Claims 12-28 are currently pending. Examiner acknowledges amended claim(s) 12, 19, 20 and 21 and cancelled claim(s) 1-11. The previous rejection(s) of claim(s) are withdrawn. The following new ground(s) of rejection(s) are set forth below:

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 12 positively recites limitations that overlap statutory classes. In this case, the applicant has positively recited a method and an apparatus in the same claim. See MPEP 2173.05(p) II. The Examiner notes that claim 12 appears to be drawn to two different statutory classes, specifically the product as recited in claim 12 and an apparent method step of using the product “wherein the instants of impact are taken into account for calibrating in time dynamic measurement of the distance between shoes”. The Examiner notes that a single claim may be drawn to only a single statutory class, therefore, claim 12 is directed to non-statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

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3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 12-20 and 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5807283 to Ng in view of US 7174277 B2 to Vock et al. (hereinafter "Vock").

Regarding claims 12-20 and 22-28 Ng discloses a stride monitoring device, comprising a first shoe including at least a magnetic mass and a second shoe including at least magnetometer configured to measure a magnetic field produced by the magnetic mass in the first shoe and to output magnetic field signals based on the measured magnetic field produced by the magnetic mass in the first shoe, where the magnetic field signals can be processed to determine stride parameter (col. 2, ll. 14-25). Ng discloses where the magnetic mass is a permanent magnet (30). Ng discloses where the second shoe comprises electronic means (100) for processing the magnetic field signals, where the electronic means comprises means for transmitting (130) a signal output by the electronic means. Ng discloses portable means for receiving the signal transmitted by the transmission means and for displaying data representative of the signal (col. 1, ll. 38-41). Ng discloses calibration means for performing a calibration in time of the dynamic measurement of the distance between shoes based on the instants of impact (col. 2, ll. 34-36). Ng discloses means for determining, based on the calibration, instants at which the magnetic field signals are to be processed (col. 2, ll. 44-52). Ng discloses where the electronic processing means calculate a time difference between consecutive impact times and calculate a stride based on the time difference

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(col. 2, ll. 44-52). Ng discloses the claimed invention as set forth and cited above including means for receiving data means for receiving data (160), electronic data processing means for processing data (180), the electronic data processing means including a memory ("stored" col. 3, ll. 10) and means for displaying (190). Ng discloses a calibration unit configured to calibrate the signal transmitted by the transmission means, as a function of stride length and magnetic characteristics of the shoes, a stride length estimating algorithm, an algorithm to estimate the stride speed ("a stored program device means is used to analyze the data to yield information about the distance traversed and the speed of relative motion between the magnet and the sensor" abstract, ll. 11-14; also see, col. 2, ll. 34-36 and col. 2, ll. 44-67), where the stride length estimating algorithm uses a measurement of a variation in magnetic field resulting from movement of the magnetic mass (col. 2, ll. 22-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the assembly of Ng with a plurality of magnetometers, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Ng discloses the claimed invention as set forth and cited above except for where the second shoe further includes at least one accelerometer via electronic processing means, where the second shoe comprises electronic means for processing the acceleration signal, means for controlling inputs, an algorithm to calibrate the signal transmitted by the transmission means as a function of the parameters input by the user and where the calibration means performs the calibration based on the acceleration

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signals output by the accelerometer, where the calibration means perform the calibration based on the acceleration signals output by the accelerometer.

Vock teaches in Figure 37 a shoe (484) that comprises at least one accelerometer ("has an accelerometer" col. 41, ll. 1). The accelerometer of Vock is capable of measuring an acceleration and to output acceleration signals based on the measured acceleration ("transmits travel or acceleration data" col. 41, ll. 8), and the accelerometer is further configured to output acceleration signals that enable determining instants of impact of the second shoe via electronic processing means ("sensing two 'impacts'" col. 41, ll. 35), and where the instants of impact are taken into account for calibration in time a dynamic measurement of a distance between shoes. Vock discloses where the second shoe may also include a plurality of accelerometers ("Additional accelerometers in MMD 524" col. 44, ll. 38-39). Vock teaches where the shoe comprises electronic means (482) for processing the acceleration signal (col. 42, ll. 22-23). Vock teaches means for controlling inputs (26), an algorithm to calibrate the signal transmitted by the transmission means as a function of the parameters input by the user (para. 194, ll. 7) and where the calibration means performs the calibration based on the acceleration signals output by the accelerometer, where the calibration means perform the calibration based on the acceleration signals output by the accelerometer (para. 296).

The claimed limitations including, an accelerometer configured to measure an acceleration and to output acceleration signals based on the measured accelerations, and the accelerometer is further configured to output acceleration signals that enable

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determining instants of impact of the second shoe, and where the instants of impact are taken into account for calibration in time a dynamic measurement of distance between shoes, have been thoroughly considered by the Examiner and are deemed statements of intended use. With regard the statement of intended use and other functional statements, they do not impose any structural limitations on the claims distinguishable over Vock which is capable of being used as claimed if one so desires to do so. *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Furthermore, the law of anticipation does not require that the reference “teach” what the subject patent teaches, but rather it is only necessary that the claims under attack “read on” something in the reference. *Kalman v. Kimberly Clark Corp.*, 218 USPQ 781 (CCPA 1983). Furthermore, the manner in which a device is intended to be employed does not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

One having an ordinary skill in the art at the time the invention was made would have found it obvious to modify the second shoe of Ng to include the accelerometer of Vock because Vock teaches that such modification would be an advantage over the prior art because prior art does not automatically calculate speed and distance with the accelerometer as taught by Vock at col. 42, ll. 62 to col. 44, ll. 5. Furthermore, one having an ordinary skill in the art at the time the invention was made would have found it obvious to include each of the first and second with at least one magnetic mass, measurement means, electronic means and magnetometer of Ng and at least one accelerometer of Vock because such modification is simply a mere duplication of parts

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which involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ

8. Such modification would simply provide two shoes, specifically a first and second shoe provided the same function of the single shoe of Ng in view of Vock. Therefore, a skilled artisan would have found the combination of Ng and Vock.

Claim 21 rejected under 35 U.S.C. 103(a) as being unpatentable over US 5807283 to Ng in view of US 7174277 B2 to Vock et al. (hereinafter "Vock") as applied to claim 20 above, and further in view of US 20050245839 A1 to Stivoric et al. (hereinafter "Stivoric").

Regarding claim 21, Ng in view of Vock discloses where the calibration unit is configured to determine a direct correspondence between the measured signal and the stride length (col. 2, ll. 34-36) and the claimed limitations as set forth and cited above except for where the calibration unit is configured to determine a mathematical calibration law by a polynomial regression.

Stivoric is a reference that teaches a device that collects data from a sensor and includes a polynomial regression equation (para. 216). One having an ordinary skill in the art at the time the invention was made would have found it obvious to modify the calibration unit of Ng in view of Vock to include the polynomial regression equation of Stivoric as Stivoric teaches at paragraph 216 that the polynomial regression provides an estimate of the output of the parameter of interest. Therefore, a skilled artisan would have found the combination of references obvious.

Response to Arguments

Applicant's arguments filed 07/31/2009, with respect to the rejection(s) of claim(s) 12-28 under 35 U.S.C. 103 as unpatentable over JP-2002-337930 in view of US 2007/0111753 in view of Vock et al and in view of US 7188439 to DiBenedetto et al have been fully considered. The rejection the claims 12-28 over the primary reference of JP-2002-337930 and the secondary reference of DiBenedetto have been withdrawn. The rejections of the claims over the secondary reference of US 2007/0111753 to Vock et al are maintained. The rejections of the claims in view of Vock et al in the previous Office action (03/02/2009) were not explicitly argued by the Applicant.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN P. DOUGHERTY whose telephone number is (571)270-5044. The examiner can normally be reached on Monday-Friday, 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sean P. Dougherty/
Examiner, Art Unit 3736

/Max Hindenburg/
Supervisory Patent Examiner, Art Unit 3736